



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,084	12/21/2000	Mikael Albrecht	108347-00002	7431

32294 7590 08/05/2004

SQUIRE, SANDERS & DEMPSEY L.L.P.  
14TH FLOOR  
8000 TOWERS CRESCENT  
TYSONS CORNER, VA 22182

EXAMINER

HUA, LY

ART UNIT PAPER NUMBER

2135

DATE MAILED: 08/05/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/741,084

Applicant(s)

ALBRECHT, MIKAEL

Examiner

Ly V. Hua

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3, 4.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

Art Unit: 2135

**DETAILED ACTION*****Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-8, 11 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. With regard to claim 1 (and thus its dependent claims 2-8):
  - i The purpose for which the files, which require to be scanned, is identified is not clear. Notice the identification of such is not being used. This problem result a missing a necessary step that link the identifying step to the rest of the other steps recited in the claim.
  - ii Who or what element that does the initiating step is not clear.
- b. With regard to claim 11:
  - i The phrase "the first node" at the end of this claim 11 lacks antecedent basis.
    - (1) Perhaps the phrase "the first node" at the end of this claim 11 should be changed to --the second computer--.
  - ii With an assumption that the phrase "the first node" at the end of this claim 11 is the first computer, the phrase "causing a first computer ... to ... receive the ... portions ... from first computer" is confusing.
- c. With regard to claim 14:
  - i The phrase "the workstation corresponding to the second node is arranged to communicate with a plurality of workstations corresponding to respective second nodes" is confusing. Perhaps the phrase "respective second nodes" is in error.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1-6 and 9-11 are rejected under 35 U.S.C. 103(a) as being obvious over **Applicant's admitted prior art** teaches [Applicant's Background of the Invention, paragraphs 2 and 3] in view of **Cozza (5,649,095)**.

- d. With respect to claim 1:
  - i Claim 1 claims a method
    - (1) of scanning electronic files for computer viruses,
    - (2) the method comprising:
      - (a) identifying
        - (i) at a first node
          - 1) of a computer network,

Art Unit: 2135

- (ii) electronic files
      - 1) which require to be scanned
        - a) for computer viruses;
    - (b) initiating
      - (i) a dialogue
        - 1) between
          - a) said first node and
          - b) a second node
            - i) of the network,
            - ii) the second node comprising
              - {1} a virus scanning application,
        - 2) during which dialogue
          - a) the second node
            - i) identifies
              - {1} to the first node
              - {2} one or more portions
                - {a} of the electronic file
                - {b} required by the virus scanning application; and
      - (c) transferring
        - (i) the identified portion(s)
        - (ii) from the first node
        - (iii) to the second node
        - (iv) over the network.
  - ii Applicant's admitted prior art teaches [see Applicant's Background of the Invention, paragraph 3]:
    - (1) One network approach
      - (a) embodied in the F-Secure Anti-Virus Agent and Server.TM. product (Data Fellows Oyj, Espoo, Finland)
      - (b) offers
        - (i) an improved solution in which
          - 1) "agents"
            - a) are located at various transit nodes
              - i) of a network and
            - b) identify
              - i) (by for example examining file name extensions)
              - ii) data which is capable of containing a computer virus.
      - (2) The intercepted suspect data
        - (a) is then transferred
          - (i) by the agent,
          - (ii) over the network,
          - (iii) to a central server
            - 1) comprising
              - a) an anti-virus scanning application
                - i) which performs a virus scan on the data.
        - (3) The result of the virus scan
          - (a) is returned
            - (i) from the central server
            - (ii) to the agent
              - 1) which initiated the scan.
          - (4) The advantage
            - (a) of this approach as compared to conventional gateway scanning
            - (b) is that
              - (i) it is only necessary
                - 1) to provide
                  - a) one or a small number of scanning applications in a network.
          - iii However, applicant's admitted prior art does not teach:

Art Unit: 2135

- (1) that the second node [i.e., central server] identifies to the first node one or more portions of the electronic file required by the virus scanning application,
    - (2) since the applicant has said that admitted prior art has disadvantage in that it may require the transfer of relatively large volumes of data over a computer network. This can slow down the virus scanning operation and may also result in network traffic congestion, having a knock-on effect on non-virus scanning related traffic. The transfer of insecure information over a network may also introduce security risks.
  - iv **Cozza (5,649,095) teaches [e.g., in his Abstract, Brief Summary Text –TSTX (18)]**
    - (1) **a method and apparatus for scanning for a computer virus which eliminates the necessity of scanning all portions of all files.**
  - v It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:
    - (1) apply Cozza's concept of not scanning all portions of file
      - (a) to select
        - (i) a certain portion(s)
          - 1) of the file
            - a) intercepted by Applicant's admitted prior art
          - (ii) for scanning; and
        - (b) have the scanner of applicant's admitted prior art accesses only those certain portion(s) for scanning.
    - vi The skilled person would have been motivated to do such application because:
      - (1) Applicant's admitted prior art teaches a scanning file for computer virus and
      - (2) Cozza teaches
        - (a) the elimination
          - (i) of the necessity of scanning all portions of file
          - (ii) increases the speed at which a file can scan for the presence of a virus -- [col. 1, lines 15-21].
  - e. With respect to claim 2:
    - i Claim 2 claims:
      - (1) 2. A method according to claim 1 and comprising
        - (a) identifying
          - (i) electronic files which require virus scanning,
          - (ii) at a plurality of first nodes of the computer network and
        - (b) initiating a dialogue between the first nodes and the said second node when appropriate.
      - ii Applicant's admitted prior art teaches:
        - (1) One network approach
          - (a) embodied in the F-Secure Anti-Virus Agent and Server.TM. product (Data Fellows Oyj, Espoo, Finland)
          - (b) offers
            - (i) an improved solution in which
              - 1) "agents"
                - a) are located at various transit nodes
                  - i) of a network and
                - b) identify
                  - i) (by for example examining file name extensions)
                  - ii) data which is capable of containing a computer virus.
      - f. With respect to claim 3:
        - i Claim 3 claims:
          - (1) 3. A method according to claim 1, wherein the first node and the second node are located at respective different locations in the computer network.
        - ii Applicant's admitted prior art teaches:
          - (1) One network approach

Art Unit: 2135

- (a) embodied in the F-Secure Anti-Virus Agent and Server.TM. product (Data Fellows Oyj, Espoo, Finland)
- (b) offers
  - (i) an improved solution in which
    - 1) "agents"
      - a) are located at various **transit nodes**
        - i) of a **network** and
      - b) identify
        - i) (by for example examining file name extensions)
        - ii) data which is capable of containing a computer virus.
- (2) The intercepted suspect data
  - (a) is then transferred
    - (i) by the agent,
    - (ii) over the network,
    - (iii) to a central server
      - 1) comprising
        - a) an anti-virus scanning application
          - i) which performs a virus scan on the data.

Art Unit: 2135

## g. With respect to claim 4:

## i Claim 4 claims:

- (1) 4. A method according to claim 1, wherein the first node is one of:
  - (a) a database server,
  - (b) electronic mail server,
  - (c) an Internet server,
  - (d) a proxy server, or
  - (e) a firewall server.

## ii Applicant's admitted prior art teaches [see Applicant's Background of the Invention, paragraph 2]:

- (1) that a gateway based anti-virus application is typically provided at
  - (a) a firewall (being transit node of a network)
  - (b) Internet server (being transit node of a network),
  - (c) mail server (being transit node of a network); and
- (2) that the centralized scanning embodied in the F-Secure Anti-Virus Agent and Server.TM. product (Data Fellows Oyj, Espoo, Finland)
  - (a) offers:
    - (i) "agents"
      - 1) are located at various transit nodes
        - a) of a network and
      - 2) identify
        - a) (by for example examining file name extensions)
        - b) data which is capable of containing a computer virus.
    - (b) The intercepted suspect data
      - (i) is then transferred
        - 1) by the agent,
        - 2) over the network,
        - 3) to a central server
          - a) comprising
            - i) an anti-virus scanning application which performs a virus scan on the data.

## h. With respect to claim 5:

## i Claim 5 claims:

- (1) 5. A method according to claim 1, wherein the dialogue is carried out using a network protocol carried by IP.

## ii It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

- (1) realize that the communication (in applicant's admitted prior) between the transit nodes and the central server is done by using a network protocol carried by IP (and if not substitute one therefor).

## i. With respect to claim 6:

## i Claim 6 claims:

- (1) 6. A method according to claim 1 and comprising
  - (a) analyzing
    - (i) the file portions
      - 1) received at the second node
    - (ii) to determine
      - 1) whether or not the file contains a virus or
      - 2) cannot be guaranteed to not contain a virus, and
  - (b) returning
    - (i) the result

Art Unit: 2135

- (ii) to the first node
    - (iii) over the network.
  - ii Applicant's admitted prior art teaches [see Applicant's Background of the Invention, paragraph 3]:
    - (1) One network approach
      - (a) embodied in the F-Secure Anti-Virus Agent and Server.TM. product (Data Fellows Oyj, Espoo, Finland)
      - (b) offers
        - (i) an improved solution in which
          - 1) "agents"
            - a) are located at various transit nodes
              - i) of a network and
              - b) identify
                - i) (by for example examining file name extensions)
                - ii) data which is capable of containing a computer virus.
    - (2) The intercepted suspect data
      - (a) is then transferred
        - (i) by the agent,
        - (ii) over the network,
        - (iii) to a central server
          - 1) comprising
            - a) an anti-virus scanning application
              - i) which performs a virus scan on the data.
    - (3) The result of the virus scan
      - (a) is returned
        - (i) from the central server
        - (ii) to the agent
          - 1) in the transit node
          - 2) which initiated the scan.
- j. With respect to claim 9:
  - i Claim 9 claims:
    - (1) 9 An anti-virus scanning system
      - (a) for use in scanning
        - (i) electronic files
          - 1) in a computer network,
      - (b) the system comprising:
        - (i) a first computer having
          - 1) processing means
            - a) arranged to identify electronic files which should be scanned for computer viruses; and
        - (ii) a second computer having
          - 1) processing means
            - a) arranged to perform a virus scanning operation,
    - (2) the first computer
      - (a) further comprising communication means
      - (b) for initiating a dialogue
        - (i) between the first computer and the second computer,
        - (ii) during which
          - 1) the second computer
            - a) identifies
              - b) to the first computer
            - c) those portions of the electronic files required



Art Unit: 2135

- i) by the first computer
      - ii) for performing the virus scanning operation, and
    - (c) for transferring
      - (i) those portions
      - (ii) to the second computer.
  - ii As to claim 9:
    - (1) Claim 9 has limitations that are similar to the of claim 1,
      - (a) which limitations of claim 1 have been addressed above in the section rejection claim 1 with reference to Applicant's admitted prior art and Cozza
    - (2) The steps of claim 1 are carried out by the component of claim 9, and the elements of claim 9 carry out the steps of claim 1.
    - (3) Claim 9 is thus rejected with the same rationales applied against claim 1.
- k. With respect to claim 10:
  - i Claim 10 claims:
    - (1) 10. A computer memory
      - (a) encoded with executable instructions
      - (b) representing a computer program
      - (c) for causing
        - (i) a first computer connected to a computer network to:
          - 1) identify electronic files which require to be scanned for computer viruses;
          - 2) initiate
            - a) a dialogue
              - i) between the first computer and a second computer also connected to the computer network;
          - 3) receive
            - a) from the second computer
            - b) an identification of portions of the electronic file
              - i) which are required for virus scanning of the electronic files at the second computer; and
          - 4) transfer
            - a) the identified portion
              - i) from the first computer
              - ii) to the second computer.
    - ii As to claim 10:
      - (1) Claim 10 has limitation that are similar to those of claim 1,
        - (a) which limitation as been address above in the section rejecting claim 1 with reference to Applicant's admitted prior art and Cozza.
      - (2) It is understood that the first computer of Applicant's admitted prior art carries out its method steps according to executable instructions that have been encoded into a computer memory.
      - (3) Claim 10 is thus rejected with the same rationales applied against claim1.
  - l. With respect to claim 11:
    - i Claim 11 claims:
      - (1) 11. A computer memory
        - (a) encoded with executable instructions
        - (b) representing a computer program
        - (c) for causing
          - (i) a first computer connected to a computer network to:
            - 1) receive
              - a) a dialogue initiation request
                - i) from a second computer also connected to the computer network

Art Unit: 2135

- ii) concerning an electronic file identified by the second computer as requiring a virus scan;
  - 2) identify
    - a) to the second computer
    - b) those portions
      - i) of the electronic file
      - ii) which are required by the first mentioned computer
      - iii) for performing a virus scanning operation at the first computer; and
  - 3) receive
    - a) the identified portions
      - i) of the electronic file
      - ii) from the first node.
- ii As to claim 11:
  - (1) Claim 11 has limitation that are similar to those of claim 1,
    - (a) which limitation as been address above in the section rejecting claim 1 with reference to Applicant's admitted prior art and Cozza.
    - (b) It appears that:
      - (i) the first computer recited in claim 11 is the second node recited in claim 1;
      - (ii) the second computer recited in claim 11 is the first node recited in claim 1.
  - (2) It is understood that the first computer (and the second) of Applicant's admitted prior art carries out its method steps according to (their respective) executable instructions (assigned for them and) which have been encoded into a computer memory (associated with each of them).
  - (3) Claim 11 is thus rejected with the same rationales applied against claim 1.

5. Claim 7, 8 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art and Cozza as applied to claim 1 above, and further in view of common practice in the art.

- m. With respect to claim 7:
  - i Claim 7 claims:
    - (1) A method according to claim 6 and comprising
      - (a) transferring
        - (i) from the second node
        - (ii) to the first node
        - (iii) data portions to be written into the file to disinfect the file.
  - ii As to claim 7:
    - (1) **Official notice** is hereby taken that:
      - (a) it is a **common practice in the art** of disinfecting computer virus to discard an unwanted file by either:
        - (i) erase/delete it or
        - (ii) overwrite the data therein with certain data.
    - (2) It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:
      - (a) send a certain piece of data into an unwanted file of \_\_\_\_\_ and
      - (b) write that piece over the unwanted data in the files
    - (3) The skilled person would have been motivated to do such overwriting because it is a common practice in the art.

- n. With respect to claim 8:
  - i Claim 8 claims:

Art Unit: 2135

- (1) 8 A method according to claim 6 and comprising
    - (a) sending
      - (i) instructions
        - 1) from the second node
        - 2) to the first node
      - (ii) to inform the first node how to disinfect the file.
- ii As to claim 7:
    - (1) **Official notice** is hereby taken that:
      - (a) it is **a common practice in the art** of disinfecting computer virus to
        - (i) provide instructions (computer virus disinfecting module) to a computer so as to execute therein to discard an unwanted file by either:
          - 1) erase/delete it or
          - 2) overwrite the data therein with certain data.
      - (2) It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:
        - (a) provide instruction codes for a computer, which is disinfect computer virus, for causing it to:
          - (i) erase/delete or
          - (ii) write that piece over the unwanted data in the files (such as all 0's or all 1's).
      - (3) The skilled person would have been motivated to provide such provision do such deleting/overwriting because it is a common practice in the art.
  - o. With respect to claim 12:
    - i Claim 12 claims:
      - (1) 12 A method
        - (a) of disinfecting
          - (i) an electronic file
            - 1) stored at a first node of a computer network,
          - (ii) after the file has been identified as containing a virus by a virus scanning engine located at a second network node,
        - (2) the method comprising:
          - (a) sending
            - (i) from the second node
            - (ii) to the first node,
            - (iii) data portions to be written into the infected file and/or
            - (iv) instructions for disinfecting the file; and
          - (b) receiving
            - 1) the data portions and/or instructions
            - 2) at the first node and
          - (ii) writing
            - 1) the data portions
            - 2) into the infected file and/or
          - (iii) carrying out said instructions.
      - ii As to claim 12:
        - (1) Claim 12 has limitations that are similar to those of claim 7 and 8.
          - (a) The steps,
            - (i) which are carried out for disinfecting an electronic file stored at a first node of a computer network, after the file has been identified as containing a virus by a virus scanning engine located at a second network node,
            - (ii) have been
              - 1) presented in claims 7 and 8, and
              - 2) addressed above in the section rejecting claims 7 and 8 with respect to Applicant's admitted prior art and Cozza.
        - (2) Claim 12 is thus rejected with the same rationales applied against claims 7 and 8.

Art Unit: 2135

- p. With respect to claim 13:
  - i Claim 13 claims:
    - (1) 13 A method according to claim 12, wherein
      - (a) said first and second nodes
      - (b) are respective computer workstations coupled to a common network.
  - ii As to claim 13:
    - (1) Claim 13 has limitations that are similar to those of claim 3,
      - (a) which limitations of claim 3 have been addressed above in the section rejecting claim 3 with respect to Applicant's admitted prior art and Cozza.
    - (2) Claim 13 is thus rejected with the same rationale applied against claim 3.
- q. With respect to claim 14:
  - i Claim 14 claims:
    - (1) 14. A method according to claim 13, wherein
      - (a) the workstation
        - 1) corresponding to the second node
      - (ii) is arranged to communicate
        - 1) with a plurality of workstations
          - a) corresponding to respective second nodes.
    - (2) As to claim 14:
      - (a) Claim 14 is interpreted as being corresponding to claim 2 (except for the error pointed out in the above rejection of this claim 14 under 35 USC 112, second paragraph).
      - (b) Claim 14 has limitation that is similar to that of claim 2,
        - (i) which limitation of claim 2 has been addressed above in the section rejection claim 2 with reference to Applicant's admitted prior art and Cozza.
      - (c) Claim 14 is thus rejected with the same rationale applied against claim 2.

Art Unit: 2135

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly V. Hua whose telephone number is (703) 305-9684. The examiner can normally be reached on Monday to Friday from 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Kim, can be reached on 703-305-4303. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ly V. Hua  
Primary Examiner  
Art Unit 2135

Lvh  
June 24, 2004